

FILE: PSF3 Fire Marsh
A7
Fire Inspection
Program
* W 22 4/19/87

April 30, 1987

To: Steve Phelps, Interim Fire Marshal

Fr: Rich Shankland, Deputy Fire Marshal

Re: King County International Airport

Per your instructions, I hereby submit the following proposal concerning the implementation of a comprehensive fire prevention program at King County International Airport.

Description of King County Airport

King County Airport is a geographical, legal, and political entity located partially within the limits of the City of Seattle and partially in unincorporated King County. It is approximately 2 and 1/2 miles in length and 1/2 mile in average width. The land, except for small portions is owned by King County.

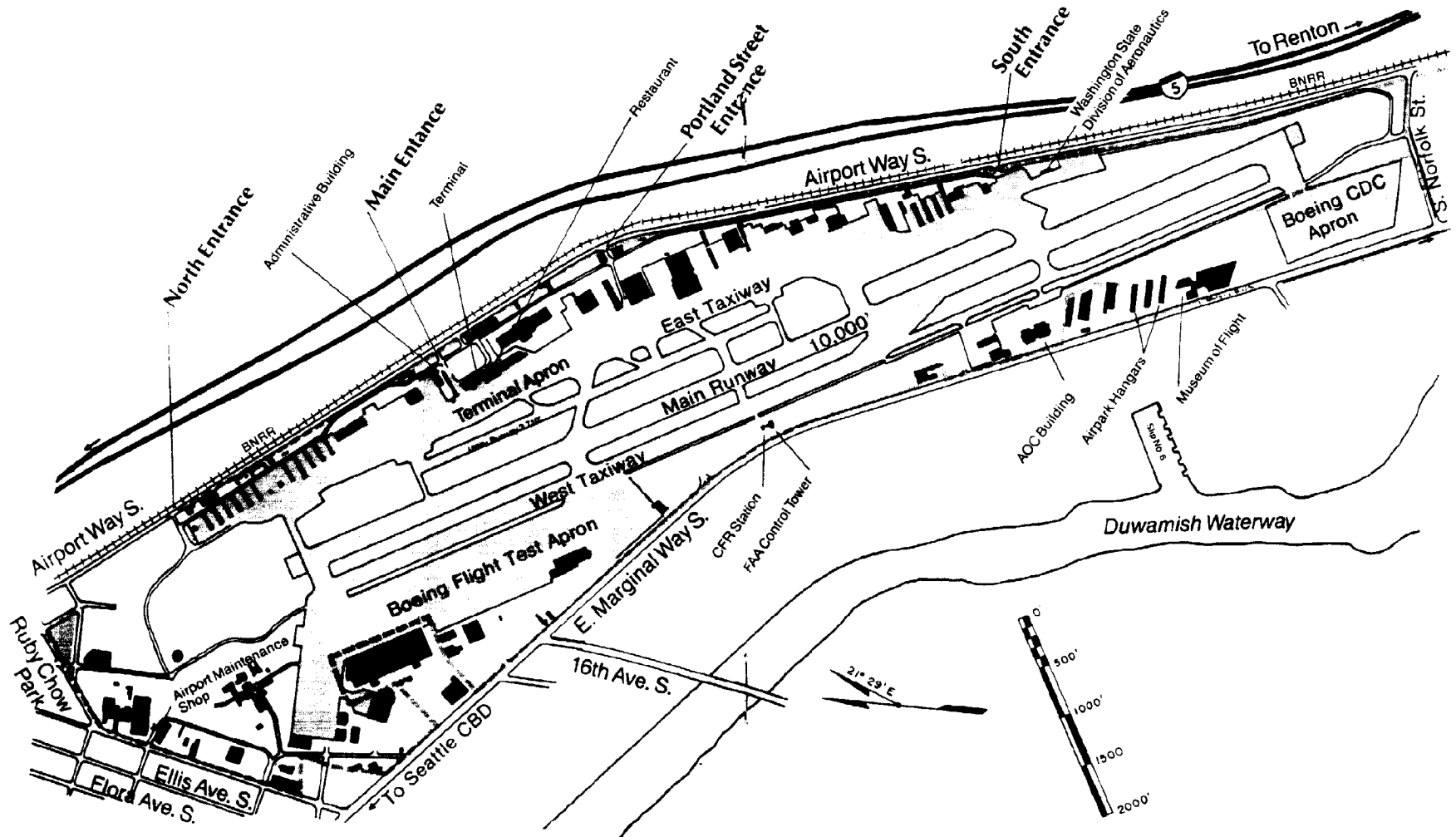
The buildings sited on the Airport and its environs house retail sales, wholesalers, service occupancies, offices, and manufacturing plants; most of which are oriented to the aviation community. The chief lessees on the Airport are, of course, the Boeing Airplane Companies.

There is also a considerable dollar value of property located outside of buildings in the form of aircraft which are vulnerable to damage or loss both from exposure to fires and from the hazards of refueling.

The worth of the aircraft at the Boeing Airplane Company is over a billion dollars. To put this in perspective, one 747 is about the same value as the Columbia Tower. Although the aircraft are insured by Lloyd's of London, the liabilities involved, should a loss occur, are staggering in dimension. King County, as a landlord, would naturally be a party to any subrogation or legal action.

(Please see map next page)

Boeing Field/King County International Airport
 ... one of the busiest airports in the world
 Seattle, Washington



Fire Protection

Fire protection responsibilities on King County Airport are shared by four agencies. The Seattle Fire Department has primary responsibility for structural fire fighting within the city limits on the airport and is also equipped for a certain amount of Crash-Fire-Rescue operations (CFR) involving aircraft.

The Boeing Company is primarily aligned toward providing CFR capabilities for company aircraft, but can be relied upon for capable assistance in the event of a structural fire of company buildings.

King County Airport Police/CFR can supply a limited amount of trained manpower and equipment to fight aircraft fires.

Tukwila Fire Department, through a contract with King County Fire District #1, also responds to King County Airport and is equipped for structural fire fighting.

Both Seattle Fire Department and Tukwila Fire Department are able to handle hazardous materials incidents and life support responses.

Fire Prevention

History:

In the recent past, the responsibility for fire prevention at King County Airport has shifted between several agencies. Until 1982, the buildings located at King County Airport were inspected annually by the Seattle Fire Department. At that time, a legal challenge to their authority to enforce City of Seattle codes was raised and upheld. A state law was passed effective January 1, 1986, giving the City of Seattle authority to enforce the City Fire Code at the airport, if requested to by the Airport Administration. This resulted in conflicts between the City Fire Code and the Uniform Building Code as adopted by King County.

To resolve this problem, it seems that King County should take over the enforcement of the Uniform Fire, Building, and Mechanical Codes as adopted by King County, at King County Airport.

Present Needs:

In order to effectively provide a Fire Prevention program at King County Airport, several factors must be considered:

A. Objectives of such a program.

1. To prevent loss of life and property.
2. To regulate hazardous materials and processes.
3. To monitor public assembly occupancies.
4. To minimize King County's liability in the event of a loss.

B. Program scope.

There are 228 separate occupancies on King County property at the airport. There are also about 30 flammable liquid storage tanks and 30 Aircraft Refueler Units.

Due to the fact that King County is self-insured and at risk in the event of a fire or explosion resulting in the loss of life or property, special emphasis should be placed on providing a comprehensive and aggressive fire prevention program at King County Airport. Such a program should include:

1. Semi-annual inspections of each occupancy, flammable liquid storage facility, and Aircraft Refueler.
2. Issuance and renewal of Hazardous Materials/Process Permits.
3. Night inspections of public assembly occupancies.
4. Reinspections as necessary to effect compliance.
5. Special inspections arising from temporary operations and complaints.

C. Estimated manpower requirements.

An accepted factor used to estimate man hours required in the administration of a fire prevention program is 3 man hours per occupancy per inspection. If an occupancy is to be inspected semi-annually it will require 6 man hours annually to conduct the inspections, do the office work necessary, conduct reinspections, etc. Total annual man hour requirements then become:

228 occupancies @ 6	=	1368 man hours
30 F/L tanks @ 6	=	180 man hours
30 refuelers @ 6	=	180 man hours

TOTAL = 1728 man hours

One full time Deputy Fire Marshal has available about 1575 man hours annually not including vacation and sick leave.

*Does the fire dept
"program" sick leave?*

It is readily seen that in order to provide a fire prevention program such as described will require one full time employee.

D. Funding

The funding necessary to implement this program would have to be appropriated by the County Council. The amount would be approximately one F.T.E. at the level of Deputy Fire Marshal.

The Airport Administration has expressed the opinion that such funding is perhaps justified in the light of the \$124,500 in Leasehold Excise Taxes that were put into the King County General Fund in 1986.

Additionally, there would be about 90 hazardous materials/ processes permits issued at the airport returning around \$9000 initially and \$4500 annually thereafter to the county.

E. Organization.

The Fire Marshal of King County is charged by Washington State law with the enforcement of the Uniform Fire Code. Logically, it follows that the employee enforcing this code at the King County Airport should work for, and report directly to the Fire Marshal.

While the two organizations located at the airport and concerned with fire safety (The Boeing Company Fire Department and King County Airport Police/Crash-Fire-Rescue) enjoy the respect and admiration of the fire service community, neither organization has the manpower, expertise, or legal authority required to perform the specialized and exacting task of code enforcement.

It goes without saying however, that the cooperation and support of both these agencies are necessary in order to achieve the objectives of a fire prevention program at the airport.

Ideally, the Airport Fire Marshal should have his office located at the airport in order to reduce travel time and allow a close communication with the Airport Administration. This type of arrangement has proven valuable at Fire District 39 and will be even more so after the Fire Marshal's Office is relocated to the East side of Lake Washington. Office space is available at little or no cost to the county.

F. Assignment

The Deputy Fire Marshal assigned to this position should have the following qualifications in addition to the requirements for the basic job:

1. An intimate knowledge of aircraft and their special hazards.
2. A general knowledge of airport operation.
3. A working knowledge of Article 24 of the U.F.C.
4. Be familiar with and be able to interface his operations with the other agencies concerned with the airport such as the FAA, NTSB, Customs, Airport Administration, and The Boeing Company.
5. A personal commitment to Aviation Safety.

Editorial comment.

The question before us is not whether a disaster will occur at the airport but, simply stated, WHEN it will happen. Even a person of my tender years (45) has personally witnessed many tragedies on or near the airport. I have seen a C-46 transport crash through an apartment house on South Vale Street. I have seen the aftermath of a DC-3, loaded with servicemen headed home for Christmas, which slid from an icy runway with fatal results for those aboard. I have seen a Bellanca Viking, with four souls aboard, which crashed straight-in, only a few feet from the Boeing Company flight line. I have responded to a fire in a hanger where a 737 was undergoing pressure tests of its fuel tanks. This fire was caused by leakage from a drum of flammable liquid running into a 100 foot long open drain across the end of the hanger, at the end of which was a welding operation. This incident could have been prevented by a Fire Inspection!

"Those who do not learn from the mistakes of history are doomed to repeat them." When a disaster occurs at the airport many pointed and direct questions will be asked by the courts and the media of those whose responsibility it is to provide public safety. It would be a comforting feeling to be able to reply that "everything within reason was done." It would also allow those responsible to sleep well both before and after the event.

Thank you for the opportunity to present this proposal.

Richard G. Shankland

Deputy Fire Marshal

King County

-11-

KCSlip4 34206

SEA400753